

Buah Kemas.ID of E-Commerce Performance Platform for Agricultural Product Sales on CV. Wirabhumi Mandiri

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Conference Paper

Buah Kemas.ID of E-Commerce Performance Platform for Agricultural Product Sales on CV. Wirabhumi Mandiri

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Abstract

CV. Wirabhumi Mandiri is one of the private businesses that carries out agribusiness efforts on food crops, plantations and fisheries, as well as conducting general trading and export trade, inter - island interiors, distributors of agricultural products including the sale of agricultural production facilities. UPN "Veteran" of East Java Team comes through a series of technological innovation proposals to provide solutions on marketing and sales issues faced in the form of e-commerce web creation from a business process perspective towards transaction automation and enterprise workflow, also increasing the sales and purchase capacity of products and information on-line. System approach is a problem assessment method that begins with an analysis or identification of needs that will result in an efficient operational system. The e-commerce program will be implemented using SDLC (System Development Life Cycle) approach with the Waterfall method. BuahKemas.id are e-commerce applications for partner companies provide some advantages such as increased market exposure, lowering operating costs, shortening the product cycle time, improving supplier management, expanding market reach (global reach market) and increasing customer loyalty.

Keywords: Agricultural business, e-commerce, technology partnership

INTRODUCTION

Business development in the agricultural sector should be more adaptive to the advancement of information technology because marketing activities is not the only factor to reach success. In this information age, space and time are no longer an obstacle, this is because of the development of information technology, both hardware and software has been developing very quickly, so that existing data and information can be conveyed through information system media that can be known by the entire community in the world. One of the accessible media information systems is the web. The Web is an information system that supports user interaction through the web interface, which is part of the client-side that can be run by a web browser (Simarmata, 2010). Suratno (2012) added the resulting web application can provide ease in the dissemination of data and information owned by agricultural business actors.

Evolution of the emergence of e-commerce in the business environment transforms almost all the business functions of the area and every activity, ranging from its sales transaction to its advertising. The existence of e-commerce makes it easy for consumers to be able to make a sale transaction without having to come to the place. Trading activities (or sale and purchase transactions) of agricultural goods and services through effective, efficient,

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inexpensive, practical electronic media, extensive promotional tools without limit, and can be used to build customer loyalty. E-commerce is one of the marketing diversification to increase profits.

CV. Wirabhumi Mandiri as a candidate firm was founded in 2017, is a company doing business in the field of agri-food crops, plantation and fishery. In addition, the company also focuses on general trading, especially the sale of agricultural products, including agricultural production facilities. In conducting its activities, the company is still using manual processes when consumers will make reservations and transactions, even consumers are required to come directly to the venue or to place orders via telephone. It results in inefficient transaction processing. The company becomes less competitive while the consumer is also difficult to find information about the CV, which inevitably led the company to be known by people. Based on observation advances to employers and employees, the company has conditions: 1) reports sales are still done manually, 2) lack of delivery of product information and prices in detail to the consumer with the vulnerability of agricultural products that are seasonal (seasonal), easily damaged (perishable) and voluminous, and 3) the profile of the company has not been widely known. Benefits perceived by partner companies directly and indirectly from the implementation of e-commerce is a positive influence on the farming community concerned, notably of wider marketing channels, increasing demand for production and encourage the procurement of production at farm level, with the expectation of production increases specified quality standards (Soekartawi, 2007).

Furthermore, in the operational reality of the existence of marketing concept conducted by CV. Wirabhumi Mandiri still dispersed various issues including 1) lack of promotional media and markets for products sold by companies, 2) company owners do not know the existence of promotional media and sales of e-commerce so require assistance, 3) owners of the company have low/small budget allocation so they have not been able to create their own e-commerce web because of relatively expensive manufacturing cost, 4) farmer community or associate is difficult to obtain details of market opportunity information if the product is channeled to the company, and 5) consumers need accurate information on floor price and ceiling price offered by the company due to the nature of seasonal, perishable and voluminous agricultural products so both parties feel benefited.

The formulation of this model of e-commerce is a driving force for the economy not only CV. Wirabhumi Mandiri as a buyer of peasant group production, but also farmer groups as raw material suppliers as well as consumers in terms of product information and prices. The e-commerce use is expected to cut the chain of product distribution, thereby increasing the purchasing power of the people in line with the improvement of farmers' economic status. As we know that cuts in the chain will lower the cost of the sale from its distribution side.

METHODS

Implementation of this program through a series of stages of activity implementation including 1) Collection of System requirements (requirements), this phase is the definition of the system to be made, and what is needed to make the system. Defining the system is done by knowing the user's need for system functions. (2) Designing is the process of designing/modeling done with the program components at the time of program writing, interface modeling is done for ease of application interaction with users that includes counting and display. (3) Construction (construction) is a system development made using some software and hardware that meet the specifications of the program. (4) Testing is a test done to ensure that the software is designed according to the design, and its function works well. Testing is done to ensure that a complete software testing framework covers all processes, needs and controls contained in the needs analysis and system design documents. (5) Application (deployment) is that once the application is successful through the testing phase, then the next stage is the implementation stage or system implementation. At this point the app is ready for use by the user. (6) Operation and maintenance, i.e. operational and system maintenance activities performed after the system is completed (Guritno *et al.*, 2011) (Figure 1).

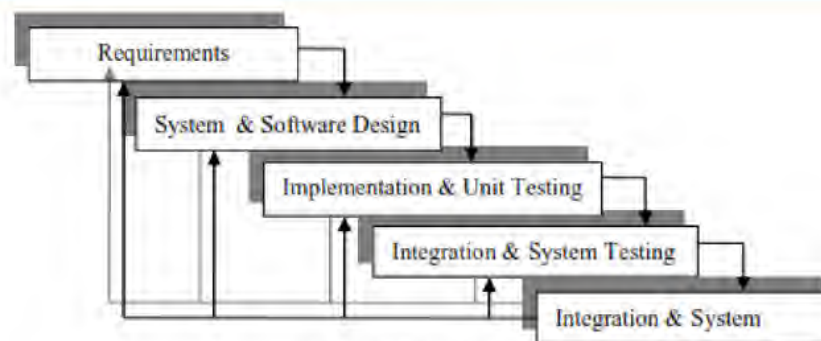


Figure 1. Waterfall Cycle

RESULT AND DISCUSSION

Problem Analysis

Analysis is the decomposition of an integral system into its components in order to identify and evaluate problems, opportunities, constraints and expected needs so that improvements can be made to existing systems. The analysis to identify the problem, analysis of performance, information, economics, application security, efficiency, and customer service is called PIECES analysis (performance, information, economy, control, efficiency, and service) as shown in Table 1.

Table 1. Framework PIECES CV. Wirabhumi Mandiri

Performance	
P	The performance of the existing offline sales system is still not effective, this is because the system is still done manually. Conventional ways are less effective when information is sought in a fast way.
Information	
I	The existing sales information system is still in printed product brochure.
Economics	
E	The promotion of product for sale costs quite expensive because marketing must be done in few cities.
Control	
C	There is an indirect process of booking by customers outside the city to the company that often causes inaccuracies of data booked with the data obtained by the sales admin.
Efficiency	
E	Cannot serve numbers of customer at the same time via phone media.
Service	
S	Unsubscribed customers reduced sales transactions and customer loyalty declines.

Source: Partner Company Observation (2017)

E-Commerce Design

The design stage is the process where the complete system specification is based on the needs that CV. Wirabhumi Mandiri as a tenant to UPN's Team of UPN "Veteran" of East Java in several joint discussions. As has

been described in relation between table and system design flowchart mentioned in the method. To attract and facilitate users, the application system must develop an attractive and accessible user interface. Ecommerce market to be run by CV. Wirabhumi is Business to Consumer (B2C) to facilitate transaction and income received by the company. The website user interface designs were shown in Figure 2 and 3.

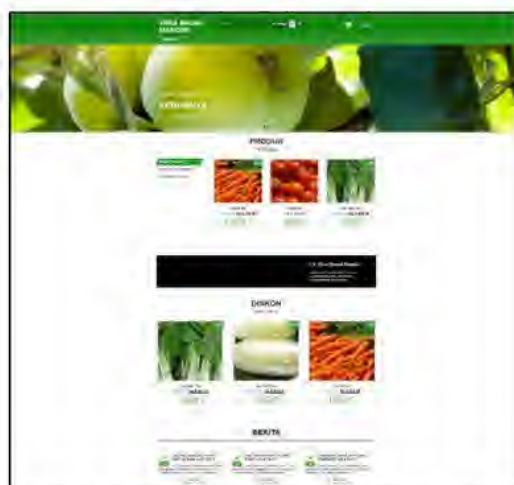


Figure 2. Webcommerce Interface of CV. Wirabhumi Mandiri



Figure 3. Development Process Interface

System Implementation

The development of web-commerce based on the incubation process so far has been done including a common understanding that the company has not had a brand as well as determining the vision brought by the company. Furthermore, the brand name "BuahKemas" means product information offered by the company, was chosen because it is easy to remember, interesting and funny as it intended to attract the youth segment as company's target. Because

of the importance of fiber, vitamins, minerals and nutrients in fruits and vegetables, humans' need for fruit is very high, especially at adolescents. Thus, the existence of this webcommerce which facilitated the needs for fruit can make them easier in consuming fruit.



Figure 4. Webcommerce Menu Design

Figure 4. shows the design of display menus that can be selected by the consumer, of course with a variety of packages that can be packaged with submenu package followed with a set price. In addition, to provide a package of fruit and vegetable menu, it will be developed several fruit-based products made from fruit and vegetables such as potatoes wedges, chocolate fruit satay, crispy broccoli and so on. In regards to the order process then the consumer is directed first to click the register menu provided, consisting of general information by order including name, phone, email and shipping address as well as selected package menu. This register menu makes it easier to order at once to be a sales report for CV. Wirabhumi Mandiri as shown in Figure 5. For a temporary payment process, consumer can use bank transfer. If this applied for two years, the company will seek partnership with banking institution, offering easy payment facilities.

Figure 5. Registration Menu

For the administrators, this commerce web also comes with the admin login menu so the order received can be immediately responded (Figure 6). Because trust, feedback, and on time-service are the company's key to keep the consumers so if those aspects are not met then consumers will be disappointed and end up with unwillingness to re-order. UPN "Veteran" of East Java team is obliged to provide the website development training that has been built not just fill the content of product info, but also the design layout to attract the visitors' attention thus increasing their buying willingness.

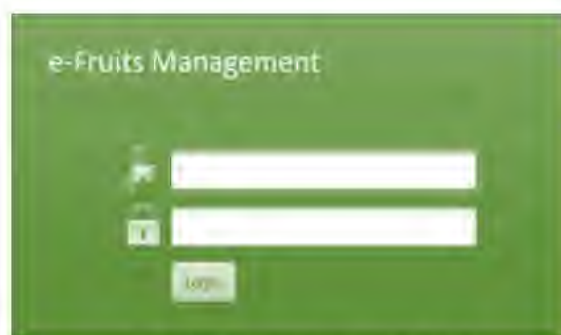


Figure 6. Administrator Login Menu

Supportive Aspect

Research Activities for Institutions (RISKI) are also incubated on the firm by holding a series of fruit packaging engineering training ranging from materials, forms to bookings. Utilization of packaging paper used by the company considering its low cost, easy to access, flexible and extensive use. It also serves as a media communicator that represents the identity of the company. Some fruit package design packet shown in Figure 7.



Figure 7. Paper Packaging by buahkemas.id

In addition, to enhance the vision of both team and the firm, then follow the HAKI (intellectual property rights) management training conducted by LPPM UPN "Veteran" of East Java with various materials such as Intellectual Property, Patent & Patent Drafting, Geographical Brand & Indications, Copyright, and Industrial Design, Integrated Circuit Layout Design, Trade Secret.

CONCLUSION

Transfer of sales promotion science and technology through e-commerce web media in the form of training and utilization of online marketing related to the partners resulting in some achievements such as: (1) Establishment of

new business group/Technopreneurship applying IT, (2) Availability of additional devices and supporting materials (3) The availability of Software Framework e-commerce applications for the firm to provide the basis of business development, (4) Training of partner human resources to become skilled and professional in creating, operating, developing and maintaining software framework of e-commerce, (5) Advantage of partners in business management and entrepreneurship in managing their business and generating quality and acceptable products of the market.

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